

This article is a post-print version

“I can/should look like a media figure.” The association between direct and indirect media exposure and teens’ sexualizing appearance behaviors.

Jolien Trekels and Steven Eggermont

School for Mass Communication Research, Faculty of Social Sciences, KU Leuven, Leuven
Belgium

Keywords: teen television programs, peer discussions about media content, perceived pressure, perceived attainability, self-sexualization, personality

Please cite as follows:

Trekels, J., & Eggermont, S. (accepted). “I can/should look like a media figure.” The association between direct and indirect media exposure and teens’ sexualizing appearance behaviors. *The Journal of Sex Research*. doi: 10.1080/00224499.2017.1387754

Author note

Email addresses: Jolien.Trekels@kuleuven.be; Steven.Eggermont@kuleuven.be

Correspondence concerning this article should be addressed to Jolien Trekels, School for Mass Communication Research, KU Leuven, Parkstraat 45, B-3000 Leuven, Belgium, Jolien.Trekels@kuleuven.be, Tel: +32 16 32 34 14 – Fax: +32 16 32 04 97. This research was funded by the KU Leuven Special Research Fund (BOF).

Abstract

Prior research has examined the influence of media exposure on adolescents' sexualized self-concept, but engagement in sexualizing appearance behaviors remains understudied, especially among a younger age group (i.e., early adolescents). This three-wave panel study among 971 9- to 14-year-olds ($M_{\text{age}} = 12.99$, $SD = 1.03$) showed that discussing media content with friends (i.e., indirect media exposure) was indirectly related to sexualizing appearance behaviors through perceived attainability of the appearance ideal. Direct media exposure was not significantly related to sexualizing appearance behaviors, nor to perceived pressure or perceived attainability. Direct and indirect media exposure influenced boys and girls in similar ways, although the model showed a better fit among the girls. Additionally, reward sensitivity did not moderate the examined relations.

Keywords: teen television programs, media discussions, perceived pressure, perceived attainability, sexualizing appearance behaviors, personality

“I can/should look like a media figure.” The association between direct and indirect media exposure and teens’ sexualizing appearance behaviors.

Mass media, including television programs directed at a younger audience, are replete with sexualizing messages emphasizing the importance of an attractive appearance as a prerequisite to good life outcomes (Northup & Liebler, 2010) and as a normative part of the female and male gender role (e.g., Kirsch & Murnen, 2015). The strong focus on appearances and sexual attractiveness may teach viewers that these are the most valued attributes of a person, thereby disregarding other attributes such as personality and physical competences of the body (i.e., sexualization; Ward, 2016). Given the abundance of appearance-focused messages in the media, the question arises whether and to what extent viewers become convinced to engage in sexualizing appearance behaviors themselves.

The current study sought to expand scholarly knowledge in four ways. First, this study is among the first to examine media’s influence on appearance behaviors among an understudied age group (i.e., 9- to 14-year-olds). Early adolescence is marked as a time of gender intensification, pertaining to the increased gender stereotyping of attitudes and behaviors (Hill & Lynch, 1983). In order to learn what is appropriate for men and women, early adolescents actively seek out gender-related cues through, for instance, the media (Gerding & Signorielli, 2014). Given the sexualizing (i.e., appearance-focused) messages in teen media content (Kirsch & Murnen, 2015) and early adolescents’ proneness to engage in traditional gendered behaviors, we examined whether teen media exposure relates to early adolescents’ engagement in sexualized appearance behaviors, one year later. Engaging in sexualizing (appearance) behaviors has been shown to negatively affect adolescents’ development (Zurbriggen & Roberts, 2013). McKenney and Bigler (2014) showed, for instance, that (10- to 15-year-old) girls with higher scores on a measure of internalized sexualization reported poorer academic achievement. Additionally, girls who wear sexualized

clothing (i.e., dressed in a short dress with leopard-print cardigan holding a purse) have been rated more negatively by others (Graff, Murnen, & Smolak, 2012).

Second, we followed Fitzsimmons-Craft's (2011) suggestion to consider both direct and indirect (through interactions with television-exposed peers) exposure to media messages. Specifically, it is argued that by discussing storylines or media characters with peers, media content becomes more personally relevant and more easily accepted (Becker et al., 2011). Given the popularity of teen television programs among early adolescents (Rideout, 2007), this content might be frequently watched and discussed among friends. Therefore, we examined whether individual exposure to teen television programs (i.e., direct media exposure) and discussing media content with peers (i.e., indirect media exposure) would increase early adolescents' engagement in sexualizing appearance behaviors.

Third, we aimed to increase our understanding of the processes underlying this influence. We propose two different mechanisms. One option is that media exposure might increase early adolescents' perceived pressure to comply with ideal standards of attractiveness and to conform with the gender roles. The second option is that early adolescents might perceive a sexualized appearance as attainable, and be inspired to perform sexualizing appearance behaviors themselves. We thus aimed to examine how two different drives (i.e., "*I can* look like a media figure" versus "*I should* look like a media figure") may lead to the same behavioral outcome (i.e., taking on a more sexualized appearance).

As a last contribution, the current study will look into the role of personality (i.e., reward sensitivity) as a moderator of the examined relations.

Mass media sexualization

Early adolescents face the important developmental task of consolidating a gender identity (Hill & Lynch, 1983). The media constitute important sources of information on what is considered appropriate for women and men (Kirsch & Murnen, 2015). However,

media messages are likely to be sexualizing by adhering to the heterosexual script. Specifically, women are portrayed as objects who are valued solely for their physical appearance and sexual appeal (e.g., Kirsch & Murnen, 2015). Men, on the other hand, are depicted as being heterosexual, dominant, aggressive, and sex-driven (e.g., American Psychological Association [APA], 2007; Giaccardi, Ward, Seabrook, Manago, & Lippman, 2016; Vandebosch & Eggermont, 2012). Notably, gender-stereotypical messages are also present in content created for “tweens” (i.e., children between 10 and 14 years old). For instance, Kirsch and Murnen (2015) analyzed seven popular television programs aired on Nickelodeon and Disney Channel (e.g., *iCarly* and *Hannah Montana*) and showed that boys objectified and valued girls solely for their appearance 2.5 times per hour. Gerding and Signorielli (2014) also showed that girls in teen programming are portrayed as being more concerned with their appearance and receiving more attention for the way they look than boys. Content analyses also provide evidence for the sexualization of boys in media content. Teen programs (Kelly, 2010) and television programs aired on Nickelodeon and Disney Channel (Kirsch & Murnen, 2015) send the message that sexual appeal is the most defining component of masculinity and thus boys’ value. Moreover, Van Damme (2010) concludes that boys are used and objectified by girls in series such as *Gossip Girls* and *One Tree Hill*, for instance when they are only used by girls as a means to make others jealous.

Sexualization also occurs if male and female attractiveness is defined according to narrow standards of appearance: Men should have a muscular upper-body and low body fat (Leit, Gray, & Pope, 2002) and the ideal woman is young (Ganahl, Prinsen, & Netzley, 2003), thin, and sexy (Markula, 2011). Meeting such appearance standards is often associated with positive outcomes, including popularity and involvement in romantic relationships (Northup & Liebler, 2010). As social acceptance becomes an important goal for adolescents (Brinthaup & Lipka, 2002), they may be especially vulnerable to such messages.

Young girls have, for instance, been shown to internalize sexualizing messages. In a study by Starr and Ferguson (2012), 6- to 9 year-old girls preferred a sexualized doll (i.e., a doll dressed in short jean shorts and low-cut top) over a non-sexualized doll as their ideal self. A recent study by Slater and Tiggemann (2016) also confirmed that exposure to sexualized media (i.e., television programs and magazines) increased 6- to 9-year-old girls' preference for sexualizing clothing.

Although prior research has suggested that adolescents' media exposure is related to different measures of self-sexualization, including self-objectification (Ward, Seabrook, Manago, & Reed, 2015), body surveillance (Vandenbosch & Eggermont, 2012), and internalized sexualization (McKenney & Bigler, 2014), more research is needed that addresses the behavioral aspect of self-sexualization (Ward et al., 2015). The current study aimed to address this lacuna and, in doing so, pay specific attention to an understudied age group (i.e., early adolescents).

Smolak, Murnen, and Myers (2014) define self-sexualization as “intentionally engaging in activities expressly to appear more sexually appealing” (p. 1), such as wearing cologne, wearing tight clothes, and wearing short skirts/shorts. Although early adolescence is characterized as a time during which gender-stereotypical cues become more salient and compliance with gender-stereotypical ideals becomes more important, they may still not *intentionally* engage in sexualized behaviors. More specifically, early adolescents may not intend to appear more sexually appealing when they wear short skirts or shorts. Nevertheless, early adolescents' engagement in sexualizing appearance behaviors could lead to more deliberate self-sexualization when they grow older. Specifically, being pre-occupied with appearance at an early age might be considered a manifestation of the belief that sexual attractiveness is an important aspect of one's identity. Early adolescents whose identity

contains a (self-) sexualizing component, may be predisposed to *intentionally* engage in more sexualized behaviors later on. The current study will be the first to look at media influence on sexualizing appearance behaviors among an early adolescent sample.

If we combine prior literature on the influence of media exposure on self-sexualization (Ward, 2016) with literature on the relation between media exposure and engagement in appearance-modifying behaviors, such as dieting (e.g., Peterson, Paulson, & Williams, 2007) and supplements use (Field et al., 2005), then it can be expected that:

H1: Teen television exposure is related to engagement in sexualizing appearance behaviors, one year later.

Prior research has indicated that indirect media exposure might even be more harmful than direct media exposure (Fitzsimmons-Craft, 2011). For instance, Becker et al. (2011) showed that adolescent girls' indirect media exposure (i.e., interactions with television-exposed peers) was related to higher levels of eating disorder pathology than direct exposure (i.e., personal television viewing frequency). As peers gain importance and their opinion becomes highly valued (Steinberg & Morris, 2001), they may play a pivotal role in early adolescents' acceptance and endorsement of "media-based values" (Becker et al., 2011, p.43).

Early adolescents become part of friendship cliques, i.e., small groups of peers with shared interests and backgrounds, which provide an important context for interpretation (Smetana, Campione-Barr, & Metzger, 2006). For instance, peer conversations about appearance ideals add personal relevance to those ideals which increases adolescent girls' and boys' acceptance of those ideals (Jones, Vigfusdottir, & Lee, 2004). Among boys, peers have been shown to be important transmitters of messages about building muscles (McCabe & Ricciardelli, 2005; Ricciardelli & McCabe, 2003). Moreover, members of the same friendship clique have reported similar levels of body image concern and eating behaviors, because body image attitudes are implicitly communicated through behaviors such as talk and

clothing choice (Paxton, Schutz, Wertheim, & Muir, 1999). In addition, Beentjes and Konig (2013) showed that the more girls and boys talked with their friends about music videos, the more likely they were to use information from those music videos in forming their own sexual attitudes. In sum, friends provide an important context in which media content is discussed rendering values and behaviors demonstrated in such content personally relevant.

We hypothesized the following:

H2: Indirect media exposure (i.e., peer discussions about media content) is more strongly related to sexualizing appearance behaviors than direct media exposure.

The inspirational path “I can”

Ample research exists on the negative influence of media exposure on young people's body image (for a review see Barlett, Vowels, & Saucier, 2008; Grabe, Ward, & Hyde, 2008). It is argued that repeated exposure to an unattainable ideal, decreases women's body satisfaction because they are unable to comply with an ideal they have come to see as normative. More importantly, idealized images go hand in hand with texts that explain how the ideal can be achieved (Knobloch-Westerwick & Romero, 2011). For instance, magazines targeted at young women regularly show that the ideal appearances of celebrities can be emulated through clothing, make-up, and beauty products (Duke, 2002). The same messages are found in media directed at a younger audience. An analysis of four online teen magazines, for instance, revealed three major themes: Beauty is a requirement, beauty can be achieved only through the purchase of products, and we can help you find the right products (Labre & Walsh-Childres, 2003). In addition, by portraying the popular girl/boy as someone who wears stylish clothing and is preoccupied with appearances, teen television programs also send the message that there are ways to become the popular, attractive girl/boy (Northup & Liebler, 2011). Thus, early adolescents are confronted with media messages aimed to convince them that anyone can become attractive (Burkley et al., 2014).

If the means by which to achieve an attractive appearance are presented as attainable, individuals may become inspired and motivated to engage in self-improvement behaviors (Knobloch-Westerwick, 2015). In their experimental study, Knobloch-Westerwick and Romero (2011) found that ads in which appearance ideals were presented as more attainable (i.e., accompanied by articles about body-improvement means as opposed to articles with no reference to body shape) induced less negative affective responses among (adult) women and men. Social comparison theory (Festinger, 1954) is often used to explain the underlying mechanism: In their desire for stable self-appraisals, individuals compare various aspects of the self with similar others. Appearance appears to be one of many specific qualities of the self that is subject to comparison (Schutz, Paxton, & Wertheim, 2002). Such comparisons have been shown to induce body dissatisfaction among both adolescent girls and boys, although the association is stronger for girls (e.g., Jones, 2001). However, recent research insights reveal that social comparison can also have an inspiring effect depending on the contextualization of the ideal imagery (Veldhuis, Konijn, & Knobloch-Westerwick, 2016). More specifically, when individuals compare themselves to ideal imagery and believe they too can achieve those ideal appearances (i.e., perceived attainability), an inspiring or motivational process might be triggered (Veldhuis et al., 2016).

However, when individuals (mis)perceive their control over, for instance, acquiring an ideal outward appearance, they might – nonetheless – pursue unrealistic goals, such as complying with an unrealistic beauty ideal, and engage in harmful behaviors. Burkley et al. (2014) showed, for instance, that the more a woman believed that beauty is malleable, the more she focused on her appearance, and showed interest in engaging in harmful appearance-management strategies (i.e., cosmetic surgery). Studies examining whether such a mechanism could explain whether media exposure relates to early adolescents' appearance behaviors have been lacking. The third hypothesis was:

H3: Perceived attainability of an attractive appearance acts as a mediator in the relation between direct and indirect media exposure and sexualizing appearance behaviors.

The pressured path “I should”

The influence of media exposure on early adolescents’ engagement in sexualizing appearance behaviors might also be explained by the perceived pressure from the media and peers to achieve the ideal. The sociocultural framework (e.g., Knauss, Paxton, Alsaker 2007) considers sociocultural sources, including the media and peers, as the most important transmitters of appearance ideals. Individuals become dissatisfied with their own appearance when they realize they cannot meet these ideals, while at the same time feel pressured by their environment to comply with those ideals. Girls have been shown to be especially vulnerable to experiencing pressure to be thin from the media (e.g., Tiggemann, Gardiner, & Slater, 2000). Perceived pressure from the media, in turn, has been reported to be an important predictor of body dissatisfaction (e.g., Knauss et al., 2007; Stice, Spangler, & Agras, 2001), appearance-rejection sensitivity (Park, Diraddo, & Calogero, 2009), and disordered eating (Stice, 1998). Additionally, pressure from peers to be thin has also been related to body image concern and disordered eating among girls (Paxton et al., 1999; Shomaker, & Furman, 2009). Self-discrepancy theory (Higgins et al., 1987) provides an interesting framework to explain such findings. The theory argues that individuals experience emotional discomfort when they realize their actual self is not in line with their ideal or ought self (i.e., self-discrepancies). Such psychological discomfort “prompts the implementation of a dissonance-reduction strategy” (Elliot & Devine, 1994, p. 383), such as engaging in behaviors to approach the ideal. This study will be the first to examine whether perceived pressure could also explain the studied relation among a younger age group. The fourth hypothesis was:

H4: Perceived pressure of an attractive appearance acts as a mediator in the relation between direct and indirect media exposure and sexualizing appearance behaviors.

Moderating factors

In their differential susceptibility to media effects model, Valkenburg and Peter (2013) call for more research on how and why some individuals are more susceptible to media-effects than others. Certain media effects might, for instance, be conditional on an individual's personality traits. However, how personality moderates the relation between media exposure and body image and appearance-related behaviors remains underexplored.

The current study aims to address this lacuna in the literature by examining whether reward sensitivity might enhance the examined media effect on engagement in sexualizing appearance behaviors. It is argued that risk-taking increases between childhood and adolescence because the brain system that regulates the processing of rewards becomes more sensitive and more easily aroused around the time of adolescence (Steinberg, 2007).

Nevertheless, individuals differ in their sensitivity to rewards and the extent to which they actually engage in reward-driven behaviors. The underlying system responsible for the approach of such stimuli is the Behavioral Activation System (BAS). Those with an active BAS scan the environment for possible rewarding stimuli. Once perceived, activity in this system causes the person to begin movement toward achieving these rewards (Gray, 1970). Prior research has related reward sensitivity (BAS) to disordered eating among girls and boys (e.g., Hasking, 2006), suggesting that reward sensitivity plays a role in behaviors related to appearance modification. For instance, one study (Mussap, 2006) showed that, among men, body development (i.e., muscle/size preoccupation, obligatory exercise, and use of chemical supplements) stemmed from the heightened sensitivity to the anticipated rewards associated with the thin ideal. The media appear to play an especially important role in disseminating such beauty-is-good messages. Specifically, those who are considered in accordance with the

prevailing appearance ideals are often portrayed as having various benefits. For instance, thinner characters in television programs directed at a younger audience, such as *Hannah Montana* and *Zoey 101*, received more positive comments about their appearance than other characters. Moreover, characters adhering to the appearance ideal were more likely to be involved in dating stories (Northup & Liebler, 2010). As such, media may teach youth that complying with appearance ideals brings about positive life outcomes or rewards. Such messages may be especially salient to someone with a heightened sensitivity to rewards, as he/she actively scans the environment for rewarding cues. Media messages arguing that popularity and romantic success can be achieved through attractiveness may thus be considered an appetitive stimuli. He/she will then start pursuing those rewards and engage in behaviors to approach the appearance ideal. We argue that reward sensitivity might moderate the examined relations because teen television programs, in which beauty-is-good messages are present (Northup & Liebler, 2010), will be especially salient for those high in reward sensitivity. Moreover, once attractiveness is perceived as a means to achieve various rewards, someone high in reward sensitivity will be more likely to engage in behaviors to appear more attractive. Therefore, we hypothesize that:

H5: Direct and indirect media exposure will have a stronger influence on the engagement with self-sexualizing appearance behaviors among early adolescents high in reward sensitivity (BAS).

We further argue that the hypothesized model fit would be better among female participants, for two reasons. First, prior research has concluded that boys' body image might be less influenced by sociocultural factors than girls' (e.g., McCabe & Ricciardelli, 2005). This may be in part due to the fact that girls are more often confronted with appearance-related messages than boys (e.g., Phares, Steinberg, & Thomson, 2004). Specifically, Gerding and Signorielli (2014) showed that girls in teen television programs were portrayed

as being more concerned with their appearance and receiving attention for how they look than boys. Notably, girls on television were more likely to engage in behaviors to improve their appearance. Second, research on adolescents' engagement in appearance-modification behaviors showed that girls were more likely to engage in dieting behaviors, while boys were more likely to report feeling pressured to increase muscle. Although both boys and girls increased their use of extreme body change strategies, girls showed a greater increase than boys (McCabe & Ricciardelli, 2005). Therefore, we hypothesized that:

H6: The magnitude of the examined relations will be higher among the girls.

Method

A three-wave panel study using a 6-month interval was conducted among 9 to 14-year-olds. This interval was chosen because prior research has supported the validity of a 6-month interval when testing the longitudinal association between media use and adolescents' sexualized self-concept (e.g., Vandebosch & Eggermont, 2012, 2015). Additionally, the interval was chosen because attrition increases with study duration, and a 6-month interval would enable us to obtain data of the dependent and independent variables, across one year in time. Therefore, in the fall of 2014, data were obtained from 39 schools from different parts of [country deleted] that agreed to participate in the study. Both the children and their parents were first informed about study aims, procedures, and confidentiality measures. After active parental consent was obtained, early adolescents filled out three questionnaires in class during class hours. A researcher was present at all times to ensure optimal circumstances. No incentives were provided as is customary in [country deleted]. A total of 971 children (496 boys and 475 girls) completed all three questionnaires. Across all three time points, children filled in the same measures in the same order. Respondents were re-contacted through their schools; After an appointment was made with the school head, all children that had participated in the prior wave were asked to fill in the questionnaire again. However, after the

second wave, some children transferred from elementary school to middle school. In order to re-contact those children, parents were asked to provide a postal address to which a questionnaire together with a stamped envelope was sent. In all, 1976 children participated in wave 1, 1597 children participated in wave 2, and a total of 971 children completed all three questionnaires. The mean age at baseline was 12.99 ($SD = 1.03$), 92.9% of the children were born in [country deleted]. Seventy-seven percent of the children (77.1%) reported that their parents were married, 22.4% lived with divorced parents.

Differences were explored between the early adolescents who participated in one wave ($N = 846$) and those who participated in all waves ($N = 971$) with regard to all relevant variables (at wave 1). A chi-square test showed that participants who participated in only one wave were more likely to be boys than those who completed all waves, $\chi^2(2) = 12.34, p < .001$. For the other variables, multiple ANCOVAs (controlling for age and BMI) revealed that early adolescents who participated in only one wave and those who participated in all waves did not significantly differ on any other of the key variables in our study.

Measures

Control variables. Participants completed questions about their gender (with 1 = *boy* and 2 = *girl*) and age. They also estimated their weight and height. The mean BMI was 17.10 kg/m² ($SD = 3.06$). To measure early adolescents' total amount of television exposure, we asked them to indicate how frequently they watched television on a timeline, without specifying the devices on which they could watch television. A timeline ranging from 7.00 AM to 2.00 AM was presented for each day of the week and for weekend-days or holidays. The timeframe was chosen because most daytime programming starts in the morning and continues past midnight. We further argued that children could start watching television before going to school and until late at night (during weekend days or holidays). Each hour of the day was presented by two checkboxes representing thirty minutes and participants marked

the checkboxes if they typically watch television at that moment of the day. Checkboxes were used because they aid children in visualizing their time spent on television and more accurately estimating their television exposure. Checkboxes were summed up and divided by two to get an estimate of total viewing hours per day. We summed the total hours per timeline and divided the sum by six (five weekdays and one day representing a weekend day or holiday) to create an estimate of total television viewing per day. Lastly, we measured respondents' pubertal timing by using three items of the Pubertal Development Scale (Peterson, Crockett, Richards, & Boxer, 1988). The items were "Describe the level of body hair growth," "Describe changes in complexion," and "Describe the development of voice change" (boys) or "Describe the development of breasts" (girls). By averaging the items, an estimate of pubertal timing was produced.

Perceived attainability. The perceived attainability of prevailing appearance standards was measured by asking respondents to indicate their level of agreement on a 5-point scale ranging from (1) "not at all sure" to "totally sure" with four statements, including "*I can be as attractive as famous people*" and "*I can have the same looks (hair, face, etc.) as famous people.*" The scale was created for the current study and showed good reliability ($\alpha = .86$). Higher scores indicate more perceived attainability of appearance standards.

Perceived pressure. The Pressures subscale of the SATAQ-3 was used to measure perceived media pressure to meet prevailing appearance standards. Respondents indicated their level of agreement with each of six items on a 5-point scale from (1) "totally disagree" to (5) "totally agree." Example items are "*I have felt pressure from TV or magazines to lose weight*" and "*I have felt pressure from TV or magazines to have a perfect body.*" Cronbach's alpha for this scale was .92. A mean score was computed across the items such that higher scores indicate greater perceived pressure to meet prevailing appearance standards.

Sexualizing appearance behaviors. To assess teens' engagement in sexualizing

appearance behaviors, we asked them to indicate how often they performed various appearance-focused behaviors, on a 5-point scale with *Never* (=1), *Rarely* (=2), *Sometimes* (=3), *Often* (=4), and *Always* (=5). These behaviors were chosen based on prior research by Smolak et al. (2014), summary reports on the sexualization of youth (e.g., APA, 2007; Zurbriggen & Roberts, 2013), and were adapted to fit the age of our respondents. For boys, these behaviors were wearing tight clothes, wearing low-cut shirts that expose the chest, enjoying walking around in an undressed upper-body, wearing pants so that underwear is visible, exercising to get a good physique, drinking beverages to gain muscle, and styling their hair. A principal component analysis yielded one factor (*eigenvalue*: 2.91; *explained variance*: 41.64%; $\alpha = .74$). Subsequently, the items were summed up and divided by seven. Girls were asked how often they style their hair, dye their hair, apply make-up, wear heels, wear tight clothes, wear short skirts/shorts, wearing shirts that accent the breasts, and exercise to get a good physique. A principal component analysis yielded one factor (*eigenvalue*: 2.89; *explained variance*: 46.13 %; $\alpha = .74$). Subsequently, the items were averaged.

Teen television exposure. Using a 5-point scale ranging from “Never” (=1) to “Almost every day” (=5), respondents indicated how often they watched eight programs that are specifically created for the teen audience (i.e., *Big Time Rush*, *H2O Just Add Water*, *Life With Boys*, *Wingin’ It*, *Young Justice*, *Jessie*, *Austin & Ally*, and *Violetta*). The programs that were included in the questionnaire were selected for three reasons. First, prior research shows that programs aired on Nickelodeon and Disney Channel contain many references to the importance of an idealized appearance (e.g., Northup & Liebler, 2010). Second, the programs were daily broadcast during the first wave of the study and were popular among teens. Third, all programs involved (grown-up) actors playing young and popular characters. Additionally, *Young Justice* - an animation series – was added because it contains sexualized images of muscled men and (scantily-dressed) women. The programs were broadcast at all three time

points of the study, except for *Young Justice* and *Wingin' It* which were not aired during the third wave. An overall estimate of teen television exposure was obtained by summing the item scores and dividing the sum by the total of items; Higher scores indicate more teen television exposure.

Peer discussions about media content. We followed Beentjes and Konig's (2013) measure on peer discussions about music videos to assess the frequency with which media content was discussed among peers and thus the extent to which individuals were indirectly exposed to media content. Specifically, we asked respondents to indicate their agreement with twelve statements on a 5-point scale ranging from (1) "Totally disagree" to (5) "Totally agree." Items included "*I watch television programs with my friends,*" "*When I am with my friends, our conversations often involve famous men and/or women*" and "*My friends and I agree on which famous men and/or women are attractive.*" This scale showed good reliability ($\alpha = .91$). An overall estimate of discussions about media with peers was created by summing the item scores and dividing the sum by the total of items; Higher scores indicate more engagement in peer discussions about media (i.e., indirect media exposure).

Results

Descriptive statistics

Table 1 presents the zero-order inter-correlations and descriptive statistics for the entire sample, as well as separately for boys and girls. Gender differences were explored by performing a MANCOVA analysis (using Pillai's Trace and controlling for age and BMI). This analysis revealed that there were significant differences between boys and girls, $F(7,624) = 8.09, p < .001, \eta p^2 = .08$. Specifically, girls watched teen television more often ($F(1,630) = 28.19, p < .001, \eta p^2 = .04$), while boys engaged in sexualizing appearance behaviors more frequently ($F(1,630) = 12.63, p < .001, \eta p^2 = .02$) than girls. Tables 2 (girls) and 3 (boys) summarize means, standard deviations, and percentages of all sexualizing

appearance behaviors. BMI did not differ between boys and girls, $t(898) = 1.930, p = .054$.

[TABLES 1, 2, & 3 ABOUT HERE]

Testing the hypothesized model

The integrative model was tested with structural equation modeling (AMOS) using the maximum likelihood method. The models controlled for the baseline values of age, BMI, pubertal timing, and total TV exposure by employing these variables as predictors for all of the hypothesized endogenous variables. First, multiple imputation was performed as the bootstrapping method does not allow the sample to include missing data. Three hundred and thirty-three respondents (34.4%) had missing data. One hundred and forty-six of those respondents had only one missing value that had to be imputed. All variables had less than 10% missing data.

To test hypotheses 1 and 2, a path analysis examined the direct relation between direct and indirect media exposure on sexualizing appearance behaviors, one year later. This model achieved a good fit with $\chi^2 = 23.02, df = 4, \chi^2/df = 5.75, CFI = .99, RMSEA = .07, SRMR = .01$. The results indicated that 13.8% of the variance of peer discussions about media at wave 3, 36.2% of the variance of teen television exposure at wave 3, and 34.2% of the variance of sexualizing appearance behaviors at wave 3 could be explained teen television exposure, peer discussions about media, and engagement in sexualizing appearance behaviors at wave 1. The results further revealed that teen television exposure at wave 1 related significantly to sexualizing appearance behaviors at wave 3 ($\beta = .06, B = .04, SE = .02, CI\ 95\%[-.001, .115], p = .03$). Peer discussions about media content at wave 1 significantly related to sexualizing appearance behaviors at wave 3 ($\beta = .05, B = .04, SE = .02, CI\ 95\%[-.004, .106], p = .05$). Teen television exposure also related to early adolescents' frequency of discussing media content with friends, one year later ($\beta = .13, B = .11, SE = .02, CI\ 95\%[.074, .192], p < .001$).

[FIGURE 1 ABOUT HERE]

Hypotheses 3 and 4 postulated that perceived attainability and perceived pressure would act as mediators in the examined relation between direct and indirect media exposure and sexualizing appearance behaviors. The SEM model that was designed to test these hypotheses showed an adequate fit of the data (Figure 1). The model yielded a chi-square value of 1577.22 with 763 degrees of freedom, $p < .001$, RMSEA = .03, SRMR = .03, CFI = .96; $\chi^2/df = 2.07$. The results indicated that 26.3% of the variance of perceived pressure from the media at wave 2 and 23.9% of the variance in perceived attainability at wave 2 could be explained by the variables at wave 1 (i.e., teen television exposure, peer discussions about media, perceived attainability, perceived pressure). Lastly, teen television exposure, peer discussions about media, perceived pressure, and perceived attainability explained 44.9% of the variance of sexualizing appearance behaviors at wave 3.

Teen television exposure (wave 1) was no longer significantly related to sexualizing appearance behaviors (wave 3) ($\beta = .01$, $B = .008$, $SE = .02$, $CI\ 95\%[-.041, .071]$, $p = .63$), when perceived attainability and perceived pressure were included in the model. Additionally, teen television exposure (wave 1) was not significantly related to perceived attainability (wave 2) ($\beta = .05$, $B = .04$, $SE = .03$, $CI\ 95\%[-.023, .115]$, $p = .14$) nor perceived pressure (wave 2) ($\beta = -.008$, $B = -.005$, $SE = .02$, $CI\ 95\%[-.071, .057]$, $p = .81$). Peer discussions (wave 1) were significantly related to perceived attainability (wave 2) ($\beta = .12$, $B = .11$, $SE = .03$, $CI\ 95\%[.044, .189]$, $p = .002$), but only marginally significant related to perceived pressure (wave 2) ($\beta = .06$, $B = .05$, $SE = .03$, $CI\ 95\%[-.007, .131]$, $p = .07$). Only perceived attainability (wave 2) was significantly associated with engagement in sexualizing appearance behaviors (wave 3) ($\beta = .08$, $B = .06$, $SE = .02$, $CI\ 95\%[.025, .148]$, $p = .006$).

[FIGURE 2 ABOUT HERE]

Effect sizes for indirect paths were obtained by coding user-defined estimands. Such estimands allow the user to define which paths make up the total indirect effect and provide

estimates, confidence intervals, and significance values for specific indirect effects through bootstrapping (Amos Development Corporation, 2010). The indirect relation from peer discussions about media (wave 1) to sexualizing appearance behaviors (wave 3) through perceived attainability (wave 2) was $\beta=.007$, $SE=.004$, $CI\ 95\% [.002, .018]$, $p=.006$. The indirect relation from peer discussions to sexualizing appearance behaviors through perceived pressure was $\beta=.002$, $SE=.003$, $CI\ 95\% [-.001, .012]$, $p=.21$.

Moderation of BAS. In order to test hypothesis 5, the residual centering approach was used to create two interaction terms; one of BAS with teen television exposure and one of BAS with peer discussions about media. Although the model showed an acceptable fit ($\chi^2 = 12850.37$ with 7124 degrees of freedom, $p < .001$, RMSEA = .03, CFI = .94; $\chi^2/df = 1.804$), the interaction terms were not significantly related to sexualizing appearance behaviors at wave 3, $\beta=.01$, $B=.015$, $SE=.04$, $CI\ 95\% [-.049, .059]$, $p=.69$ and $\beta=-.03$, $B=.05$, $SE=.04$, $CI\ 95\% [-.084, .020]$, $p=.23$, respectively. We further tested whether the interaction terms related significantly to the mediators. These results showed that the interaction of teen television exposure and reward sensitivity related significantly to perceived pressure at wave 2 ($\beta=.08$, $B=.12$, $SE=.05$, $CI\ 95\% [.016, .141]$, $p=.01$), but not to perceived attainability ($\beta=.03$, $B=.06$, $SE=.06$, $CI\ 95\% [-.037, .094]$, $p=.37$). The interaction of peer discussions about media and reward sensitivity was not significantly related to perceived pressure ($\beta=.04$, $B=.06$, $SE=.06$, $CI\ 95\% [-.016, .099]$, $p=.33$) nor perceived attainability ($\beta=.03$, $B=.06$, $SE=.05$, $CI\ 95\% [-.037, .096]$, $p=.19$).

Gender differences. In line with hypothesis 6, we examined whether the integrative model would be moderated by gender. We first confirmed that there was measurement invariance; the groups could therefore be compared. To test for gender differences, we performed a multi-group analysis. We compared the unconstrained model (i.e., model where the parameters were allowed to vary between the groups) with the constrained model (i.e.,

model where the parameters were constrained to be equal across the groups). Results showed that the unconstrained model did not significantly differ from the constrained model ($\Delta\chi^2 = 113.32$, $\Delta df = 107$, $p = .05$), indicating that the processes did not differ for boys and girls. However, the model did explain more variance of engagement in sexualizing appearance behaviors at wave 3 among girls ($R^2 = .42$ for boys, $R^2 = .48$ for girls).

Additional analyses. First, the standardized regression coefficients for the control variables are summarized in Table 4. Second, we looked at the reverse relations. Specifically, the results revealed that sexualizing appearance behaviors at wave 1 was unrelated to teen television exposure at wave 3 ($\beta = .04$, $B = .05$, $SE = .04$, $CI\ 95\%[-.022, .097]$, $p = .20$) and peer discussions about media content at wave 3 ($\beta = .04$, $B = .05$, $SE = .05$, $CI\ 95\%[-.039, .108]$, $p = .28$). Furthermore, perceived attainability (wave 1) was significantly related to peer discussions (wave 2) ($\beta = .15$, $B = .20$, $SE = .05$, $CI\ 95\%[.088, .229]$, $p < .001$), perceived pressure (wave 2) ($\beta = .10$, $B = .10$, $SE = .04$, $CI\ 95\%[.018, .166]$, $p = .009$), and sexualizing appearance behaviors (wave 2) ($\beta = .13$, $B = .12$, $SE = .03$, $CI\ 95\%[.073, .196]$, $p < .001$). The indirect relation from perceived attainability (wave 1) to peer discussions about media (wave 3) through sexualizing appearance behaviors (wave 2) was $\beta = .014$, $SE = .007$, $CI\ 95\%[.002, .031]$, $p = .016$. Perceived attainability (wave 1) also related to perceived pressure (wave 3) indirectly through sexualizing appearance behaviors (wave 2), $\beta = .015$, $SE = .006$, $CI\ 95\%[.006, .031]$, $p = .002$. The indirect relation between perceived pressure (wave 1) and sexualizing appearance behaviors (wave 3) through peer discussions was marginally significant, $\beta = .004$, $SE = .004$, $CI\ 95\%[-.001, .015]$, $p = .11$.

[TABLE 4 ABOUT HERE]

Discussion

The current study sought to delineate factors that contribute to 9- to-14-year-old's engagement in sexualizing appearance behaviors. It explored, first, whether individual

exposure to teen television programs and discussing media content with peers were related to sexualizing appearance behaviors, one year later. Second, we examined how two different motivations (“*I can* look like a media figure” versus “*I should* look like a media figure”) might explain the examined relations. Third, the hypothesized relations were examined with attention for individual differences in reward sensitivity and gender. The results offer some important insights for the literature.

(In)direct media exposure and sexualizing appearance behaviors

Based on the path analysis, we can conclude that individual exposure to teen television programs was directly related to early adolescents’ (i.e., 9- to 14-year-old) sexualizing appearance behaviors, while the reverse relation was not supported by our data. This finding tentatively corroborates and extends prior literature on the influence of media exposure on adolescents’ (i.e., 12- to 18-year-old) appearance modification behaviors such as dieting among girls (e.g., Peterson et al., 2007) and adopting strategies to gain muscle tone among boys (e.g., McCabe & Ricciardelli, 2001). The findings are also in line with prior literature on media’s influence on self-sexualization (Ward, 2016). However, a most noteworthy finding was that direct media exposure no longer related to sexualizing appearance behaviors when early adolescents’ perceived attainability of and perceived pressure to comply with the prevailing appearance ideals were included in the model. In fact, direct media exposure was also not significantly related to perceived pressure nor attainability. These findings contradicted our expectations as it was argued that idealized images stressing the attainability of the ideal (Knobloch-Westerwick & Crane, 2012), would stimulate positive comparisons and increase viewers’ own perceived self-efficacy and their motivation to self-improve (Knobloch-Westerwick & Romero, 2011). According to social comparison theory, comparisons are more likely to occur with similar others. Therefore, we reasoned that examining the influence of teen television programs, with storylines and characters much

more attuned to early adolescents' cognitions, interests, and age, would be especially warranted. However, the results did not indicate that exposure to teen television programs convinces early adolescents that they are capable of emulating the looks of a media figure. Additionally, our findings did not support the assumption that media messages pressure viewers to comply with the prevailing ideals. Nevertheless, we believe this null finding actually entails an important contribution of the current study. Specifically, our study was among the first to include both media and peer variables in one integrative model. Our results teach us that media figures and media content may not be the most important sources teaching youth they should or can look like media figures. However, when early adolescents discussed media content with their friends, they reported heightened levels of perceived attainability and perceived pressure to comply with prevailing beauty standards, 6 months later. Thus we argue the importance of examining the intertwining of media and peers because media messages may only become personally relevant when they are discussed with friends (Jones et al., 2004).

Early adolescents who consider (narrowly defined) appearance ideals as attainable, were more likely to engage in behaviors to appear more attractive. Our results did not however provide support for the pressured path to sexualizing appearance behaviors. The two examined mechanisms were derived from the idea that motivation is founded on both the human tendency to reduce discrepancies (i.e., being motivated to change oneself as a reaction to a discrepancy) as well as being aspired to achieve a certain standard and thus to proactively move towards accomplishing a goal (Bandura, 1993). The latter has been considered the most important driving force in people's decision on what to do with the knowledge and skills they possess. The current findings are also in line with the observation of Ajzen (1991) that perceived social pressure may be overshadowed by other personal considerations, such as perceived self-efficacy, when tested together.

It follows that the “inspiration effect” may be especially important to attend to by educators or parents. Specifically, it appears that (indirect) media exposure might, at first, positively influence adolescents’ self-esteem and confidence by increasing their self-efficacy to emulate the looks of a media figure. However, in the long-term, early adolescents who are convinced that they can look like a media figure actually engage in behaviors that others may consider inappropriate to them (APA, 2007; Graff, Murnen, & Smolak, 2012). Thus this “positive” media effect might backfire and negatively influence early adolescents by further encouraging sexualization. Additionally, an interesting finding was that those who perceived beauty ideals as attainable (wave 1) were more likely to engage in sexualized appearance behaviors at wave 2 which, in turn, increased their perceived pressure to comply with beauty ideals (wave 3). This increased self-confidence might, thus, increase early adolescents likelihood to engage in sexualizing appearance behaviors which, subsequently, increases their awareness of pressures to emulate an idealized and sexualized appearance. We should, therefore, keep in mind that these factors may reinforce each other.

Moderating factors

Although recent research has increasingly paid attention to differential susceptibility of media effects and has included various factors into its models, studies examining the role of personality in media’s influence on body image have been lacking. The current study was the first to examine whether early adolescents who were (more) sensitive to rewards would be more affected by direct and indirect media exposure on engagement in sexualized appearance behaviors. The results, however, did not confirm our hypotheses. This finding is in line with a study by Vangeel et al. (2016) who also did not find a moderation effect of reward sensitivity in the relation between soap opera viewing and alcohol attitudes. However, they did find that sensitivity to punishments moderated this relation: only among those scoring lower on the sensitivity to punishments measure, soap opera viewing was linked to positive alcohol

attitudes. Vangeel et al. (2016) argued that sensitivity to punishments might protect adolescents from the positive portrayal of alcohol use in soap operas. Studies including both sensitivity to rewards and punishment may provide more meaningful results and increase scholarly knowledge on which adolescents are more (or less) vulnerable to the influence of media exposure on their body image and sexualizing appearance behaviors. Additionally, despite the existing evidence on the positive underpinning of idealized images in media content (e.g., Northup & Liebler, 2010), studies might benefit more from looking into the extent to which early adolescents have actually internalized such messages and thus consider having an idealized appearance as being associated with rewards. The findings of the current study do point at the potential importance of looking at underlying processes. Specifically, the interaction between teen television exposure and reward sensitivity related significantly to perceived pressure; The more individuals watched teen television and were high in reward sensitivity, the more pressure they perceived to approach the appearance ideal. This finding confirms that beauty-is-good media messages become salient for reward-sensitive individuals who will, subsequently, experience more pressure to emulate the looks of a media figure.

Our findings did confirm our expectations with regard to gender differences. Specifically, both girls and boys experienced pressure to conform to appearance ideals and considered these ideals to be attainable as a result of their (indirect) exposure to media. Moreover, girls and boys engaged more frequently in sexualizing appearance behaviors if they considered the ideals to be attainable. In line with the hypothesis, the relations were greater in magnitude among the girls. This finding is in line with the general focus on women's appearances in contemporary society and its influence on girls' sense of self (e.g., McKenney & Bigler, 2014). The results also corroborate prior reports on boys' increasing investment in their appearances (e.g., Manago, Ward, Lemm, Reed, & Seabrook, 2015). Vandenbosch and Eggermont (2013) found that boys' consumption of sexualizing prime-time

television and sexually explicit websites related to their internalization of appearance ideals, self-objectification, and, body surveillance. Importantly, they argued that boys are socialized into a masculine gender role of being tough and not caring about their appearance (e.g., Giaccardi et al., 2016). At the same time, boys are taught that they, too, should have an attractive body (Kirsch & Murnen, 2015). As a result, the influence of media exposure might be underestimated because boys have difficulty admitting their engagement in appearance-enhancing behaviors (Vandenbosch & Eggermont, 2013). Our findings also emphasize the importance of examining boys' sexualization in addition to girls'. Specifically, boys in our study reported to engage more frequently in sexualizing appearance behaviors. However, it should be noted that different behaviors were surveyed for boys and girls, which precludes us from making direct comparisons on this measure. We believe that boys' high score on hair styling (88% of boys indicated to style their hair to some extent) could explain the higher mean value on the overall measure. The three most frequent behaviors for both boys and girls included hair styling, exercising to get a good physique, and wearing short skirts/shorts (girls) or wearing tight clothes (boys). So, although clothing is an important mechanism for appearance management and self-sexualization (Frith & Gleeson, 2004), muscularity for boys and a physically fit body for girls are also part of the contemporary appearance ideal (Markula, 2011).

Limitations. The current study was limited in some respects. First, although we controlled for total television exposure, the current study only measured early adolescents' exposure to teen television programs. We reasoned that examining the influence of programs that portray storylines and characters that are particularly relevant to them, might be especially warranted. Still, future studies are needed that incorporate other media genres and media formats as well. For instance, social media are replete with idealized and increasingly sexualized images of relevant others (i.e., peers) (Kapidzic & Martins, 2014), which may

influence early adolescents' behaviors to appear more sexy. Second, the current study relied on self-report measures. Respondents, however, might find it difficult to estimate how often they engaged in sexualized appearance behaviors. Future research could combine self-report data with observational research methods. For instance, Kapidzic and Martins (2014) asked adolescents to fill out a questionnaire on their media exposure and internalization of media ideals. Subsequently, profile pictures on Facebook were studied in order to examine whether media-portrayed behaviors (e.g., revealing clothing) were modeled online. Future studies could collect more reliable data by observing early adolescents' engagement in sexualizing appearance behaviors, such as wearing heels or low-cut shirts, in their daily surroundings.

Conclusion. The present study adds to literature by examining the extent to which an understudied age group (i.e., early adolescents) engage in sexualizing appearance behaviors. Our findings indicate that indirect media influences through peer discussions about media content seemed to be a more robust predictor of engagement in sexualizing appearance behaviors than direct media exposure (i.e., individual exposure to teen television programs). Furthermore, this influence was mostly explained by attainability perceptions rather than experiencing pressures to conform to an appearance ideal.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211. doi: 10.1016/0749-5978(91)90020-T
- American Psychological Association. (2007). *Report of the APA Task Force on the sexualization of girls*. Washington DC: American Psychological Association.
- Amos Development Corporation, 2010. User-defined estimand: multiple estimands. Retrieved from <http://amosdevelopment.com/video/user-defined-estimands/multipleestimands/amos20/multiple-estimands-amos20.html>
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148. doi: 10.1207/s15326985ep2802_3
- Barlett, C. P., Vowels, C. L., & Saucier, D. A. (2008). Meta-analyses of the effects of media images on men's body-image concerns. *Journal of Social and Clinical Psychology*, 27, 279-310. doi: 10.1521/jscp.2008.27.3.279
- Becker, A. E., Fay, K. E., Agnew-Blais, J., Khan, A. N., Striegel-Moore, R. H., & Gilman, S. E. (2011). Social network media exposure and adolescent eating pathology in Fiji. *British Journal of Psychiatry*, 198, 43–50. doi: 10.1192/bjp.bp.110.078675
- Beentjes, J., & Konig, R. (2013). Does exposure to music videos predict adolescents' sexual attitudes? *European Scientific Journal*, 9, 1–20.
- Brinthaup, T., & Lipka, R. (2002). *Understanding early adolescent self and identity*. Albany: State University of New York University Press.
- Burkley, M., Burkley, E., Stermer, S. P., Andrade, A., Bell, A. C., & Curtis, J. (2014). The ugly duckling effect: Examining fixed versus malleable beliefs about beauty. *Social Cognition*, 32, 466–483. doi: 10.1521/soco.2014.32.5.466
- Duke, L. (2002). Get real!: Cultural relevance and resistance to the mediated feminine ideal. *Psychology & Marketing*, 19, 211-233. doi: 10.1002/mar.10010

Elliot, A. J. & Devine, P. G. (1991). On the motivational nature of cognitive dissonance:

Dissonance as psychological discomfort. *Journal of Personality and Social Psychology*, 67, 382-394. doi: 10.1037/0022-3514.67.3.382

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140. doi: 10.1177/001872675400700202

Field, A. E., Austin, S. B., Camargo, C. A., Taylor, B., Striegel-Moore, R. H., Loud, K. J., & Colditz, G. A. (2005). Exposure to the mass media, body shape concerns, and use of supplements to improve weight and shape among male and female adolescents. *Pediatrics*, 116, e214–e220. doi: 10.1542/peds.2004-2022

Fitzsimmons-Craft, E. E. (2011). Social psychological theories of disordered eating in college women: Review and integration. *Clinical Psychology Review*, 31, 1224–1237. doi: 10.1016/j.cpr.2011.07.011

Frith, H., & Gleeson, K. (2004). Clothing and embodiment: men managing body image and appearance. *Psychology of Men & Masculinity*, 5, 40-48. doi: 10.1037/1524-9220.5.1.40

Ganahl, D. J., Prinsen, T. J., & Netzley, S. B. (2003). A content analysis of prime time commercials: A contextual framework of gender representation. *Sex Roles*, 49, 545–551. doi: 10.1023/A:1025893025658

Gerding, A., & Signorielli, N. (2014). Gender roles in tween television programming: A content analysis of two genres. *Sex Roles*, 70, 43-56. doi:10.1007/s11199-013-0330-z

Giaccardi, S., Ward, L. M., Seabrook, R. C., Manago, A., & Lippman, J. (2016). Media and modern manhood: Testing associations between media consumption and young men's acceptance of traditional gender ideologies. *Sex Roles*, 75, doi: 10.1007/s11199-016-0588-z

Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns

- among women. *Psychological Bulletin*, 134, 460–476. doi: 10.1037/0033-2909.134.3.460
- Gray, J. A. (1970). The psychophysiological basis of introversion-extraversion. *Behaviour Research and Therapy*, 8, 249–266. doi: 10.1016/0005-7967(70)90069-0
- Hasking, P. A. (2006). Reinforcement sensitivity, coping, disordered eating and drinking behavior in adolescents. *Personality and Individual Differences*, 40, 677–688. doi: 10.1016/j.paid.2005.07.017
- Higgins, E. T., Horwitz, E. K., Horwitz, M. B., Cope, J., Horwitz, E. K., Horwitz, M. B., & Cope, J. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94, 319–340. doi: 10.1037/0033-295X.94.3.319
- Hill, J. P., & Lynch, M. E. (1983). The intensification of gender-related role expectations during early adolescence. in J. Brooks-Gunn & A. C. Peterson (Eds.), *Girls at puberty* (pp. 387-467). New York: Wiley.
- Jones, D. C. (2001). Social comparison and body image: Attractiveness comparisons to models and peers among adolescent girls and boys. *Sex Roles*, 45, 645-664. doi: 10.1023/A:1014815725852
- Jones, D. C., Vigfusdottir, T. H., & Lee, Y. (2004). Body image and the appearance culture among adolescent girls and boys: An examination of friend conversations, peer criticism, appearance magazines, and the internalization of appearance ideals. *Journal of Adolescent Research*, 19, 323–339. doi: 10.1177/0743558403258847
- Kapidzic, S., & Martins, N. (2015). Mirroring the media: The relationship between media consumption, media internalization, and profile picture characteristics on Facebook. *Journal of Broadcasting & Electronic Media*, 59, 278–297. doi: 10.1080/08838151.2015.1029127
- Kelly, M. (2010). "Virginity loss narratives in "teen drama" television programs." *Journal of*

- Sex Research*, 47, 479-89. doi: 10.1080/00224490903132044.
- Kirsch, A. C., & Murnen, S. K. (2015). "Hot" girls and "cool dudes": Examining the prevalence of the heterosexual script in American children's television media. *Psychology of Popular Media Culture*, 4, 18-30. doi: 10.1037/ppm0000017
- Knauss, C., Paxton, S. J., & Alsaker, F. D. (2007). Relationships amongst body dissatisfaction, internalisation of the media body ideal and perceived pressure from media in adolescent girls and boys. *Body Image*, 4, 353-360. doi: 10.1016/j.bodyim.2007.06.007
- Knobloch-Westerwick, S. (2015). Thinspiration: Self-improvement versus self-evaluation social comparisons with thin-ideal media portrayals. *Health Communication*, 30, 1089-1101. doi: 10.1080/10410236.2014.921270
- Knobloch-Westerwick, S., & Crane, J. (2012). A losing battle: Effects of prolonged exposure to thin-ideal images on dieting and body satisfaction. *Communication Research*, 39, 79-102. doi: 10.1177/0093650211400596
- Knobloch-Westerwick, S., & Romero, J. P. (2011). Body ideals in the media: Perceived attainability and social comparison choices. *Media Psychology*, 14, 27-48. doi: 10.1080/15213269.2010.547833
- Labre, M. P., & Walsh-Childres, K. (2003). Friendly advice? Beauty messages in web sites of teen magazines. *Mass Communication & Society*, 6, 379-396. doi: 10.1207/S15327825MCS0604
- Leit, R. A., Gray, J. J., & Pope, H. G. (2002). The media's representation of the ideal male body: A cause for muscle dysmorphia? *International Journal of Eating Disorders*, 31, 334-338. doi: 10.1002/eat.10019
- Manago, A. M., Ward, L.M. , Lemm, K. M., Reed, L., & Seabrook, R. (2015). Facebook involvement, objectified body consciousness, body shame, and sexual assertiveness in

- college women and men. *Sex Roles*, 72, 1–14. doi: 10.1007/s11199-014-0441-1
- Markula, P. (2011). Firm but shapely, fit but sexy, strong but thin: The postmodern aerobicizing female bodies. In A. Yiannakis & M. J. Melnick (Eds.), *Contemporary issues in sociology of sport* (237-258). Champaign: Human Kinetics.
- McCabe, M. P., & Ricciardelli, L. A. (2001). Parent, peer, and media influences on body image and strategies to both increase and decrease body size among adolescent boys and girls. *Adolescence*, 36, 224–240.
- McCabe, M., & Ricciardelli, L. (2005). A longitudinal study of body image and strategies to lose weight and increase muscles among children. *Journal of Applied Developmental Psychology*, 26, 559–577. doi: 10.1016/j.appdev.2005.06.007
- McKenney, S. J., & Bigler, R. S. (2014). Internalized sexualization and its relation to sexualized appearance, body surveillance, and body shame among early adolescent girls. *The Journal of Early Adolescence*, 36, 171-197. doi: 10.1177/0272431614556889
- Mussap, A. J. (2006). Reinforcement sensitivity theory and body change behaviour in males. *Personality & Individual Differences*, 40, 841–852. doi: 10.1016/j.paid.2005.08.013
- Northup, T., & Liebler, C. M. (2010). The good, the bad, and the beautiful. *Journal of Children and Media*, 4, 265–282. doi: 10.1080/17482798.2010.496917
- Park, L. E., Diraddo, A. M., & Calogero, R. M. (2009). Sociocultural influence and appearance-based rejection sensitivity among college students. *Psychology of Women Quarterly*, 33, 108–119. doi: 10.1111/j.1471-6402.2008.01478.x
- Paxton, S. J., Schutz, H. K, Wertheim, E., H., Muir, S. L. (1999). Friendship clique and peer influences on body image concerns, dietary restraint, extreme weight-loss behaviors and binge eating in adolescent girls. *Journal of Abnormal Psychology*, 108, 255-266. doi: 10.1037/0021-843X.108.2.255
- Petersen, A. C., Crockett, L., Richards, M., & Boxer, A. (1988). A self-report measure of

- pubertal status: Reliability, validity and initial norms. *Journal of Youth Adolescence*, 17, 117–133. doi: 10.1007/BF01537962
- Peterson, K. A., Paulson, S. E., & Williams, K. K. (2007). Relations of eating disorder symptomology with perceptions of pressures from mother, peers, and media in adolescent girls and boys. *Sex Roles*, 57, 629–639. doi: 10.1007/s11199-007-9296-z
- Phares, V., Steinberg, A. R., & Thompson, J. K. (2004). Gender differences in peer and parental influences: body image disturbance, self-worth, and psychological functioning in preadolescent children. *Journal of Youth & Adolescence*, 33, 421–429. doi: 10.1023/B:JOYO.0000037634.18749.20
- Ricciardelli, L. A., & McCabe, M. P. (2003). Sociocultural and individual influences on muscle gain and weight loss strategies among adolescent boys and girls. *Psychology in the Schools*, 40, 209–224. doi: 10.1002/pits.10075
- Rideout, V. (2007). *Parents, children & media: A Kaiser Family Foundation survey*. Retrieved from <http://eric.ed.gov/?id=ED542901>
- Schutz, H., Paxton, S. J., & Wertheim, E. H. (2002). Investigation of body comparison among adolescent girls. *Journal of Applied Social Psychology*, 32, 1906–1937. doi: 10.1111/j.1559-1816.2002.tb00264.x
- Shomaker, L. B., & Furman, W. (2009). Interpersonal influences on late adolescent girls' and boys' disordered eating. *Eating Behaviors*, 10, 97–106. doi:10.1016/j.eatbeh.2009.02.003
- Slater, A., & Tiggemann, M. (2016). Little girls in a grown up world: Exposure to sexualized media, internalization of sexualization messages, and body image in 6–9 year-old girls. *Body Image*, 18, 19–22. doi: 10.1016/j.bodyim.2016.04.004
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*, 57, 255–284. doi: 10.1146/annurev.psych.57.102904.190124

- Smolak, L., Murnen, S. K., & Myers, T. A. (2014). Sexualizing the self: What college women and men think about and do to be “sexy.” *Psychology of Women Quarterly*, 38, 379–397. doi:10.1177/0361684314524168
- Starr, C. R., & Ferguson, G. M. (2012). Sexy dolls, sexy grade-schoolers? Media & maternal influences on young girls’ self-sexualization. *Sex Roles*, 67, 463–476. doi: 10.1007/s11199-012-0183-x
- Steinberg, L. (2007). Risk taking in adolescence - New perspectives from brain and behavioral science. *Current Directions in Psychological Science*, 16, 55–59. doi: 10.1111/j.1467-8721.2007.00475.x
- Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology*, 52, 83-110. doi: 10.1146/annurev.psych.52.1.83
- Stice, E. (1998). Predicting onset and cessation of bulimic behaviors during adolescence : A longitudinal grouping analysis. *Behavior Therapy*, 29, 257–276. doi: 10.1016/S0005-7894(98)80006-3
- Stice, E., Spangler, D., & Agras, W. S. (2001). Exposure to media-portrayed thin-ideal images adversely affects vulnerable girls: A longitudinal experiment. *Journal of Social and Clinical Psychology*, 20, 270–288. doi: 10.1521/jscp.20.3.270.22309
- Tiggemann, M., Gardiner, M., & Slater, A. (2000). “I would rather be size 10 than have straight A’s”: a focus group study of adolescent girls’ wish to be thinner. *Journal of Adolescence*, 23, 645–59. doi: 10.1006/jado.2000.0350
- Valkenburg, P. M., & Peter, J. (2013). Five challenges for the future of media-effects research. *International Journal of Communication*, 7, 197–215.
- Van Damme, E. (2010). Gender and sexual scripts in popular US teen series: A study on the gendered discourses in *One Tree Hill* and *Gossip Girl*. *Catalan Journal of Communication & Cultural Studies*, 2, 77–92. doi: 10.1386/cjcs.2.1.77

Vandenbosch, L., & Eggermont, S. (2012). Understanding sexual objectification:

A comprehensive approach toward media exposure and girls' internalization of beauty ideals, self-objectification, and body surveillance. *Journal of Communication*, 62, 869–887. doi: 10.1111/j.1460-2466.2012.01667.x

Vandenbosch, L., & Eggermont, S. (2013). Sexualization of adolescent boys: Media exposure and boys' internalization of appearance ideals, self-objectification, and body

surveillance. *Men and Masculinities*, 16, 283–306. doi: 10.1177/1097184X13477866

Vandenbosch, L., & Eggermont, S. (2015). The Role of Mass Media in Adolescents' Sexual Behaviors: Exploring the Explanatory Value of the Three-Step Self-Objectification

Process. *Archives of Sexual Behavior*, 44, 729–742. doi: 10.1007/s10508-014-0292-4

Vangeel, J., Beullens, K., Goossens, L., Vervoort, L., De Cock, N., Van Lippevelde, W., & Eggermont, S. (2016). A reinforcement sensitivity perspective on adolescents'

susceptibility to the influence of soap opera viewing on alcohol attitudes. *Mass Communication & Society*, 19, 452–475. doi: 10.1080/15205436.2015.1111388

Veldhuis, J., Konijn, E. A., & Knobloch-Westerwick, S. (2016). Boost your body: Self-improvement magazine messages increase body satisfaction in young adults. *Health*

Communication, 0236(July), 1–11. doi: 10.1080/10410236.2015.1113482

Ward, L. M. (2016). Media and sexualization: State of empirical research, 1995–2015. *The Journal of Sex Research*, 4499, 1–18. doi: 10.1080/00224499.2016.1142496

Ward, L. M., Seabrook, R. C., Manago, A., & Reed, L. (2015). Contributions of diverse media to self-sexualization among undergraduate women and men. *Sex Roles*, 74, 12–23. doi: 10.1007/s11199-015-0548-z

Zurbriggen, E., & Roberts, T. (2013). *The sexualization of girls and girlhood: Causes, consequences, and resistance*. Oxford University Press: New York.